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(54) ULTRAHIGH STRENGTH STEEL PLATE FOR
LINE PIPE AND ITS PRODUCTION

(57) Abstract:

PROBLEM TO BE SOLVED: To provide an ultrahigh strength steel plate for line pipe excellent in HIC resistance and CO₂ corrosion resistance and having ≥ 900 N/mm² tensile strength.

SOLUTION: The steel plate has a steel composition

which consists of, by weight, 0.03-0.10% C, 0.05-0.40% Si, 1.00-1.50% Mn, $\leq 0.030\%$ P, $\leq 0.0020\%$ S, $\leq 0.50\%$ Cu, 0.81-1.50% Cr, 0.01-0.10% Nb, 0.01-0.10% V, 0.005-0.030% Ti, $\leq 0.06\%$ Al, $< 0.007\%$ N, 0.0005-0.0050% Ca, 0.0004-0.0020% B, and the balance Fe with inevitable impurities and in which carbon equivalent Ceq. is regulated to 0.48 to 0.60%. Moreover, this steel plate has a mixed structure of lower bainite and lath-like martensite.

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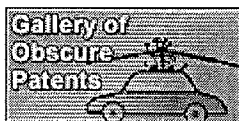
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ITS PRODUCTION****Derwent Title:** Steel sheet for pipe line - consists of mixed structure of bainite and lath
martensite [\[Derwent Record\]](#)**Country:** JP Japan**Kind:** A (See also: [JP03344308B2](#))**Inventor:** MIURA MITSURU;
YAMAMOTO AKIO;
IKEDA TOMOAKI;**Assignee:** SUMITOMO METAL IND LTD
[News, Profiles, Stocks and More about this company](#)**Published / Filed:** 1999-08-24 / 1998-02-09**Application** JP1998000027246**Number:****IPC Code:** Advanced: [B22D 11/128](#); [C21D 8/02](#); [C22C 38/00](#); [C22C 38/32](#);
[C22C 38/54](#);
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IPC-7: [B22D 11/128](#); [C21D 8/02](#); [C22C 38/00](#); [C22C 38/32](#); [C22C 38/54](#);**Priority Number:** 1998-02-09 JP1998000027246**Abstract:** PROBLEM TO BE SOLVED: To provide an ultrahigh strength
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